

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (CURRENTLY AMENDED) An aerosol therapy device having a nebuliser and a PDA, in which:

- a) said nebuliser comprises:
  - i) a controllable aerosol generator,
  - ii) at least one sensor device for generating at least one therapy-relevant measuring signal, ~~in particular with regard~~ during therapy related to aerosol production and aerosol consumption,
  - iii) ~~processing means~~ a processor for generating therapy data by the signal-based processing of the at least one measuring signal,
  - iv) a communication device for transferring the therapy data processed in relation to signals from the nebuliser to the PDA and for receiving control data transmitted from the PDA to the nebuliser, and
  - v) ~~control means~~ a controller for activating and controlling said aerosol generator based on the control data received from the PDA, the ~~control means~~

controller comprising a preset controlling the nebuliser if no control data is received;

and

b) said PDA comprises:

- i) a communication device for receiving the therapy data transmitted by the nebuliser and for transferring control data to the nebuliser, and
- ii) a device for generating control data by a therapy-related evaluation of the transmitted therapy data.

2. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 1, wherein the controllable aerosol generator is an electrically operated aerosol generator.

3. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 1, wherein the communication devices enable a communication link between the nebuliser and the PDA based on infrared or radio emissions or by a cable.

4. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 1, wherein the sensor device comprises a sensor for detecting the presence and/or the density of an aerosol generated by the aerosol generator and/or a sensor for detecting the operating state of the aerosol generator and/or a sensor for detecting the environmental conditions and/or a sensor for detecting the respiratory flow of the user.

5. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 1, wherein the device for generating control data by the therapy-related evaluation of transmitted therapy data comprises a program which can be executed within a framework of an operating system of the PDA.
6. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 5, wherein the program is configured of program modules, of which at least one module carries out the evaluation of the therapy data processed in relation to signals and generation of control data.
7. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 5 wherein a program module carries out the evaluation of the therapy data processed in relation to signals and generation of control data.
8. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 5, wherein a communication module is provided for receiving therapy data processed in relation to signals and for transmitting control data via the communication device of the PDA.
9. (CURRENTLY AMENDED) An aerosol therapy device according to claim 5, wherein a further program module is provided for displaying therapy and/or control data on a display means of the PDA.
10. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 5, wherein a telecommunication module is provided for the establishment of a remote data connection for transmitting therapy and/or control data and/or for receiving program modules.
11. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 5, wherein the program and/or one of the program modules is stored on a memory card which can be inserted into a slot of the PDA.

12. (CURRENTLY AMENDED) An aerosol therapy device according to claim 1, wherein the ~~control means~~ controller activates the aerosol generator based on control data stored in said ~~control means~~ controller if the ~~control means~~ controller is not receiving any control data from the communication device.

13. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 2, wherein the electrically operated aerosol generator comprises a membrane aerosol generator.

14. (PREVIOUSLY PRESENTED) An aerosol therapy device according to claim 10, wherein the remote data connection comprises the Internet.